

Listing of Claims

The following listing of claims replaces any pending claims. Inserted text is shown as underlined ("___") and deleted text is shown as stricken ("—").

1. (Original) A liquid crystal display device, comprising:
a first substrate;
an organic electroluminescent display (OLED) element formed on the first substrate;
a transparent protective layer formed on the OLED element;
a common electrode formed on the transparent protective layer;
a second substrate opposing the first substrate, wherein the second substrate has a pixel electrode thereon; and
a liquid crystal layer interposed between the first substrate and the second substrate.
2. (Original) The liquid crystal display device according to claim 1, wherein the OLED element comprises:
a cathode formed on the first substrate;
an organic emitting layer formed on the cathode; and
an anode formed on the organic emitting layer.
3. (Original) The liquid crystal display device according to claim 1, wherein the liquid crystal layer is a cholesteric liquid crystal layer.
4. (Original) The liquid crystal display device according to claim 2, wherein the cathode is a metal layer.
5. (Original) The liquid crystal display device according to claim 2, wherein the anode is transparent.
6. (Original) The liquid crystal display device according to claim 1, wherein the transparent protective layer is a silicon nitride (SiN_x) layer.
7. (Original) The liquid crystal display device according to claim 1, wherein the transparent protective layer is a moisture blocking layer.

8. (Original) The liquid crystal display device according to claim 1, wherein the common electrode is an ITO (indium tin oxide) or IZO (indium zinc oxide) layer.

9. (Original) A liquid crystal display device, comprising:
a first substrate;
an organic electroluminescent display (OLED) element formed on the first substrate;
a transparent protective layer formed on the OLED element;
a common electrode formed on the transparent protective layer;
a first polarizer formed on the common electrode;
a second substrate opposing the first substrate;
a pixel electrode formed on an inner side of the second substrate;
a second polarizer formed on an outer side of the second substrate; and
a liquid crystal layer interposed between the first substrate and the second substrate.

10. (Original) The liquid crystal display device according to claim 9, wherein the first polarizer is a wire grid polarizer or a thin film polarizer.

11. (Original) The liquid crystal display device according to claim 9, further comprising:
a first alignment film formed on the first polarizer; and
a second alignment film formed on the pixel electrode.

12. (Original) The liquid crystal display device according to claim 9, wherein the OLED element comprises:

a cathode formed on the first substrate;
an organic emitting layer formed on the cathode; and
an anode formed on the organic emitting layer.

13. (Original) The liquid crystal display device according to claim 12, wherein the cathode is a metal layer.

14. (Original) The liquid crystal display device according to claim 12, wherein the anode is transparent.

15. (Original) The liquid crystal display device according to claim 9, wherein the transparent protective layer is a silicon nitride (SiNx) layer.

16. (Original) The liquid crystal display device according to claim 9, wherein the transparent protective layer is a moisture blocking layer.

17. (Original) The liquid crystal display device according to claim 9, wherein the common electrode is an ITO (indium tin oxide) or IZO (indium zinc oxide) layer.

18. (Original) The liquid crystal display device according to claim 10, wherein when the first polarizer is the wire grid polarizer, the wire grid polarizer comprises:
a transparent layer formed on the common electrode; and
a metal strip pattern formed on the transparent layer.

19. (Original) The liquid crystal display device according to claim 10, wherein when the first polarizer is the thin film polarizer, the thin film polarizer is an E-type polarizer.

20. (Original) The liquid crystal display device according to claim 9, wherein the common electrode is an ITO (indium tin oxide) or IZO (indium zinc oxide) layer.

21. (Original) The liquid crystal display device according to claim 12, wherein when the first polarizer is the wire grid polarizer, the liquid crystal display device further comprises:
a reflective layer formed on the first substrate; and
a retardation film formed on the reflective layer;
wherein the cathode is semitransparent.

22. (Original) A liquid crystal display device, comprising:
a first substrate;
an organic electroluminescent display (OLED) element formed on the first substrate;
a transparent protective layer formed on the OLED element;

a first polarizer formed on the transparent protective layer, wherein the first polarizer is a wire grid polarizer;

a second substrate opposing the first substrate;

a pixel electrode formed on an inner side of the second substrate;

a second polarizer formed on an outer side of the second substrate; and

a liquid crystal layer interposed between the first substrate and the second substrate.

23. (Original) The liquid crystal display device according to claim 22, wherein the wire grid polarizer serves as a common electrode.

24. (Original) The liquid crystal display device according to claim 22, further comprising:

a first alignment film formed on the first polarizer; and

a second alignment film formed on the pixel electrode.

25. (Original) The liquid crystal display device according to claim 22, wherein the OLED element comprises:

a cathode formed on the first substrate;

an organic emitting layer formed on the cathode; and

an anode formed on the organic emitting layer.

26. (Original) The liquid crystal display device according to claim 25, further comprising:

a reflective layer formed on the first substrate; and

a retardation film formed on the reflective layer;

wherein the cathode is semitransparent.

27. (Original) The liquid crystal display device according to claim 26, wherein the cathode is a metal layer.

28. (Original) The liquid crystal display device according to claim 26, wherein the anode is transparent.

29. (Original) The liquid crystal display device according to claim 22, wherein the transparent protective layer is a silicon nitride (SiN_x) layer.

30. (Original) The liquid crystal display device according to claim 22, wherein the transparent protective layer is a moisture blocking layer.

31. (Original) The liquid crystal display device according to claim 22, wherein the wire grid polarizer comprises:

- a transparent layer formed on the common electrode; and
- a metal strip pattern formed on the transparent layer.

32. (Original) The liquid crystal display device according to claim 22, wherein the common electrode is an ITO (indium tin oxide) or IZO (indium zinc oxide) layer.

33. (Original) A liquid crystal display device suitable for an IPS (In-Plane Switching) mode liquid crystal display device, comprising:

- a first substrate;
- an organic electroluminescent display (OLED) element formed on the first substrate;
- a transparent protective layer formed on the OLED element;
- a first polarizer formed on the transparent protective layer;
- a second substrate opposing the first substrate;
- an electrode pattern formed on an inner side of the second substrate, wherein the electrode pattern provides an electric field parallel to the first and second substrates;
- a second polarizer formed on an outer side of the second substrate; and
- a liquid crystal layer interposed between the first substrate and the second substrate.

34. (Original) The liquid crystal display device according to claim 33, wherein the first polarizer is a thin film polarizer.

35. (Original) The liquid crystal display device according to claim 33, further comprising:

- a first alignment film formed on the first polarizer; and
- a second alignment film formed on the electrode pattern.

36. (Original) The liquid crystal display device according to claim 33, wherein the OLED element comprises:

- a cathode formed on the first substrate;
- an organic emitting layer formed on the cathode; and
- an anode formed on the organic emitting layer.

37. (Original) The liquid crystal display device according to claim 36, wherein the cathode is a metal layer.

38. (Original) The liquid crystal display device according to claim 36, wherein the anode is transparent.

39. (Original) The liquid crystal display device according to claim 33, wherein the transparent protective layer is a silicon nitride (SiN_x) layer.

40. (Original) The liquid crystal display device according to claim 33, wherein the transparent protective layer is a moisture blocking layer.

41. (Original) The liquid crystal display device according to claim 34, wherein the thin film polarizer is an E-type polarizer.